

# INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional)

BBC-072/

Application Number

09/815,310

Applicant(s)

Gavin C. Hirst et al.

Filing Date

March 22, 2001

Group Art Unit

1614

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
KH		4,966,849	10/30/90	Vallee et al.		199	
		5,217,999	06/08/93	Levitzki et al.		613	
		5,302,606	04/12/94	Spada et al.		357	
		5,330,992	07/19/94	Eissenstat et al.			
		5,646,128	07/08/97	Firestein et al.			

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## FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
KH		97/34876	09/25/97	WO				
		97/22596	06/26/97	WO				
		97/42187	11/13/97	WO				
		97/40830	11/06/97	WO				
		97/40831	11/06/97	WO				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

KH		Schlessinger and Ulrich, "Growth Facotr Signaling by Receptor Tyrosine Kinases", (1992), Neuron, 9:383-391
KH		Armstrong, "Treatment of Opportunistic Fungal Infections", (1993), Clinical Infectious Diseases, 16:1-7

EXAMINER

*[Signature]*

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Borthwick et al., "Inhibition of Glycogen Synthase Kinase-3 by Insulin in Cultured Human Skeletal Muscle Myoblasts", (1995), Biochemical & Biophysical Research Communications, 210(3):738-745

Badger et al., "Pharmacological Profile of SB 203580, a Selective Inhibitor of Cytokine Suppressive Binding Protein/p38 Kinase, in Animal Models of Arthritis, Bone Resorption, Endotoxin Shock and Immune Function", (1996), The Journal of Pharmacology and Experimental Therapeutics, 279:1453-1461

Vousden, "Interactions of Human Papillomavirus Transforming Proteins with the Products of Tumor Suppressor Genes", (1993), FASEB Journal, 7:8720879

Olofsson et al., "Vascular Endothelial Growth Factor B (VEGF-B) Binds to VEGF Receptor-1 and Regulates Plasminogen Activator Activity in Endothelial Cells", (1998), Proc. Natl. Acad. Sci. U. S. A., 95(20): 11709-11714

Shoelson, "SH2 and PTB Domain Interactions in Tyrosine Kinase Signal Transduction", (1997), Curr. Opin. Chem. Biol., 1(2), 227-234

Meyer et al., "A Novel Vascular Endothelial Growth Factor Encoded by Orf Virus, VEGF-E, Mediates Angiogenesis Via Signaling Through VEGFR-2 (KDR) but not VEGFR-1 (Flt-1) Receptor Tyrosine Kinases", (1999), EMBO J., 18(2), 363-374

"4-Anilinoquinazoline Derivatives", (1998), Expert Opin. Ther. Pat., 8(4): 475-478

Witzenbichler et al., "Vascular Endothelial Growth Factor-C (VEGF-C/VEGF-2) Promotes Angiogenesis in the Setting of Tissue Ischemia", (1998), Am. J. Pathol., 153(2), 381-394

Lymboussaki et al., "Expression of the Vascular Endothelial Growth Factor C Receptor VEGFR-3 in Lymphatic Endothelium of the Skin and in Vascular Tumors", (1998), Am. J. Pathol., 153(2): 395-403

Achen et al., "Vascular Endothelial Growth Factor D (VEGF-D) is a Ligand for the Tyrosine Kinases VEGF Receptor 2 (Flk1) and VEGF Receptor 3 (Flt4)", (1998), Proc. Natl. Acad. Sci. U. S. A., 95(2), 548-553

Cowburn, "Peptide Recognition by PTB and PDZ Domains", (1997), Curr. Opin. Struct. Biol., 7(6), 835-838

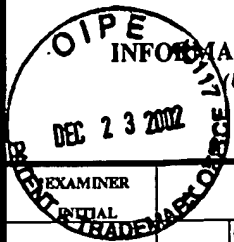
Solomon et al., "Cyclin Activation of p34cdc2", (1990), Cell, 63:1013-1024

EXAMINER

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KH	Oelrichs et al., "NYK/FLK-1: A Putative Receptor Protein Tyrosine Kinase Isolated From E10 Embryonic Neuroepithelium is Expressed in Endothelial Cells of the Developing Embryo", (1993), Oncogene, 8(1):11-15
	Ferrara et al., "The Biology of Vascular Endothelial Growth Factor", (1997), Endocrine Reviews, 18(1); 4-25
	Shawver et al., "Receptor Tyrosine Kinases as Targets for Inhibition of Angiogenesis", (1997), Drug Discovery Today, 2:50-63
	Kohn et al., "Cell Cycle Control and Cancer Chemotherapy", (1994), Journal of Cellular Biochemistry, 54:440-452
	Powis, "Signalling Pathways as Targets for Anticancer Drug Development", (1994), Pharmacology & Therapeutics, 62:57-95
	Pines, "Cell Proliferation and Control", (1992), Current Opinion in Cell Biology, 4:144-148
	Korpelainen and Alitalo, "Signaling Angiogenesis and Lymphangiogenesis", (1998), Curr. Opin. Cell Biol., 159-164
	Kolch et al., "Regulation of the Expression of the VEGF/VPS and its Receptors: Role in Tumor Angiogenesis", (1995), Breast Cancer Research and Treatment, 36: 139-155
	Pines, "Cyclins and Cyclin-dependent Kinases: Take Your Partners", (1993), Trends in Biochemical Sciences, 18:195-197
	Courtneidge, "Protein Tyrosine Kinases, with Emphasis on the Src Family", (1994), Seminars in Cancer Biology, 5:236-246
TECH CENTER 1600/2900	Bolen, "Nonreceptor Tyrosine Protein Kinases", (1994), Oncogene, 8:2025-2031
	Klagsburn and D'Amore, "Vascular Endothelial Growth Factor and its Receptors", (1996), Cytokine & Growth Factor Reviews, 7: 259-270

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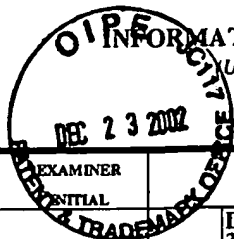
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Draetta, "Cdc2 Activation: The Interplay of Cyclin Binding and Thr161 Phosphorylation", (1993), Trends in Cell Biology, 3:287-289

Solomon et al, "Role of Phosphorylation in p34cdc2 Activation: Identification of an Activating Kinase", (1992), Mol. Biol. of the Cell, 3:13-27

Osmani et al., "Parallel Activation of the NIMA and P34cdc2 Cell Cycle-Regulated Protein Kinases is Required to Initiate Mitosis in A. nidulans", (1991), Cell, 67:283-291

Brickell, "The p60c-src Family of Protein-Tyrosine Kinases: Structure, Regulation and Function", (1992), Critical Reviews in Oncogenesis, 3(4):401-406

Myers et al., "The Synthesis and SAR of New 4-(N-alkyl-N-phenyl)amino-6,7-dimethoxyquinazolines and 4-(N-alkyl-N-phenyl)amino-pyrazolo[3,4-d]pyrimidines, Inhibitors of CSF-1R Tyrosine Kinase Activity", (1997), Bioorganic &amp; Medicinal Chemistry Letters, 7(4):421-424

He et al., "The Human Cytomegalovirus UL97 Protein is a Protein Kinase That Autophosphorylates on Serine and Threonines", (1997), Journal of Virology, 71:405-411

Yarden and Ullrich, "Growth Factor receptor Tyrosine Kinases", (1988), Ann. Rev. Biochem., 57:433-478

Shibuya et al., "Nucleotide Sequence and Expression of a Novel Human Receptor-Type Tyrosine Kinase Gene (flt) Closely Related to the fms Family", (1990), Oncogene, 5:519-524

Murray and Kirschner, "Cyclin Synthesis Drives the Early Embryonic Cell Cycle", (1989), Nature, 339:275-280

Hunter and Pines, "Cyclins and Cancer II: Cyclin D and CDK Inhibitors Come of Age", (1994), Cell, 79:573-582

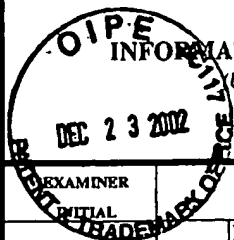
Aplin et al., "In Vitro Phosphorylation of the Cytoplasmic Domain of the Amyloid Precursor Protein by Glycogen Synthase Kinase-3 $\beta$ ", (1996), Journal of Neurochemistry, 67:699-707

Lees, "Cyclin Dependent Kinase Regulation", (1995), Current Opinion in Cell Biology, 7:773-780

EXAMINER

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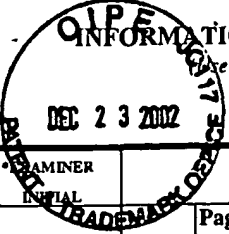
**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL TRADE MARK OFFICE	Perkins et al., "Regulation of NF-kB by Cyclin-Dependent Kinases Associated with the p300 Coactivator", (1997), Science, 275:523-527
KN	Hosoi et al., "Evidence for cdk5 as a Major Activity Phosphorylating Tau Protein in Porcine Brain Extract", (1995), Journal of Biochemistry (Tokyo), 117:741-749
	Millauer et al., "High Affinity VEGF Binding and Developmental Expression Suggest Flk-1 as a Major Regulator of Vasculogenesis and Angiogenesis", (1993), Cell, 72:835-846
	Tanaka et al., "c-Cbl is Downstream of c-Src in a Signalling Pathway Necessary for Bone Resorption", (1996), Nature, 383:528-531
	Maglione et al. "Two Alternative mRNAs Coding for the Angiogenic Factor, Placenta Growth Factor (PlGF), are Transcribed from a Single Gene of Chromosome 14" (1993), Oncogene, 8:925-31
	Jakeman et al., "Developmental Expression of Binding Sites and Messenger Ribonucleic Acid for Vascular Endothelial Growth Factor Suggest a Role for This Protein in Vasculogenesis and Angiogenesis", (1993), Endocrinology, 133(2):848-859
	Mustonen and Alitalo, "Endothelial Receptor Tyrosine Kinases Involved in Angiogenesis", (1995), J. Cell Biol. 129:895-898
	Beg and Baltimore, "An Essential Role for NF-kB in Preventing TNF-a-Induced Cell Death", (1996), Science, 274:782-784
	Wang et al., "TNF- and Cancer Therapy-Induced Apoptosis: Potentiation by Inhibition of NF-kB", (1996), Science, 274:784-787
	Van Antwerp et al., "Suppression of TNF-a-Induced Apoptosis by NF-kB", (1996), Science, 274:787-789
	Sherr, "Mammalian G1 Cyclins", (1993), Cell, 73:1059-1065
	Girard et al., "Cyclin A is Required for the Onset of DNA Replication in Mammalian Fibroblasts", (1991), Cell, 67:1169-1179

EXAMINER *[Signature]*

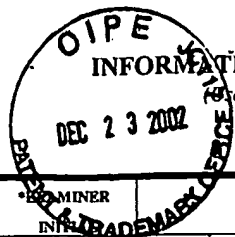
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)					
<p>EXAMINER INITIAL</p> <p><i>KH</i></p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">TECH CENTER 1600/2900</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">DEC 27 2002</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">RECEIVED</p>		Pagano et al., "Cyclin A is Required at Two Points in the Human Cell Cycle", (1992), EMBO Journal, 11:961-971			
		Rosenblatt et al., "Human Cyclin-Dependent Kinase 2 is Activated During the S and G2 Phases of the Cycle and Associates with Cyclin A", (1992), Proceedings of the National Academy of Science USA, 89:2824-2828			
		Walker and Maller, "Role for Cyclin A in the Dependence of Mitosis on Completion of DNA Replication", (1991), Nature, 354:314-317			
		DeVries et al., "The fms-Like Tyrosine Kinase, a Receptor for Vascular Endothelial Growth Factor", (1992) Science, 255:989-991			
		Quelle et al., "Overexpression of Mouse D-Type Cyclins Accelerates G1 Phase in Rodent Fibroblasts", (1993), Genes & Development, 7:1559-1571			
		Terman et al., "Identification of a New Endothelial Cell Growth Factor Receptor Tyrosine Kinase", (1991), Oncogene, 6:1677-83			
		Resnitzky et al., "Acceleration of the G1/S Phase Transition by Expression of Cyclins D1 and E with an Inducible System", (1994), Molecular & Cellular Biology, 14:1669-1679			
		Terman et al., "Identification of the KDR Tyrosine Kinase as a Receptor for Vascular Endothelial Cell Growth Factor", (1992), Biochem. Biophys. Res. Comm., 187:1579-86			
		Matsushime et al., "D-Type Cyclin-Dependent Kinase Activity in Mammalian Cells", (1994), Molecular & Cellular Biology, 14:2066-2076			
		Ohtsubo and Roberts, "Cyclin-Dependent Regulation of G1 in Mammalian Fibroblasts", (1993), Science, 259:1908-1912			
Kinsella, et al. "Protein Kinases C Regulates Endothelial Cell Tube Formation on Basement Membrane Matrix, Matrigel", (1992), Exp. Cell Res., 199:56-62					
Ullrich & Schlessinger, "Signal Transduction by Receptors with Tyrosine Kinase Activity", (1990), Cell, 61:203-212					
EXAMINER <i>[Signature]</i>		DATE CONSIDERED <i>Feb. 11, 2002</i>			

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**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

KAT	Takano, et al., "Inhibition of Angiogenesis by a Novel Diaminoanthraquinone that Inhibits Protein Kinases C.", (1993), Mol. Bio. Cell, 4:358A
	Fantl et al., "Distinct Phosphotyrosines on a Growth Factor Receptor Bind to Specific Molecules that Mediate Different Signaling Pathways", (1992), Cell, 69:413-423
	Wright, et al., "Inhibition of Angiogenesis In Vitro and In Ovo with an Inhibitor of Cellular Protein Kinases, MDL 27032", (1992), J. Cellular Phys., 152:448-57
	Osmani et al., "Activation of the nimA Protein Kinase Plays a Unique Role During Mitosis that Cannot be Bypassed by Absence of the bimE Checkpoint", (1991), EMBO Journal, 10:2669-2679
	Songyang et al., "SH2 Domains Recognize Specific Phosphopeptide Sequences", (1993), Cell, 72:767-778
	Koch et al., "SH2 and SH3 Domains: Elements that Control Interactions of Cytoplasmic Signaling Proteins", (1991), Science, 252:668-678
	Kim et al., "Inhibition of Vascular Endothelial Growth Factor-Induced Angiogenesis Suppresses Tumor Growth in vivo", (1993), Nature, 362:841-844
	Stone et al., "Reversible. P16-mediated Cell Cycle Arrest as Protection from Chemotherapy", (1996), Cancer Research, 56:3199-3202
	Ducommun et al., "Cdc2 Phosphorylation is Required for its Interaction with Cyclin", (1991), EMBO Journal, 10(11):3311-3319
	Gautier et al., "Dephosphorylation and Activation of Xenopus p34cdc2 Protein Kinase During the Cell Cycle", (1989), Nature, 339:626-629
	Gould and Nurse, "Tyrosine Phosphorylation of the Fission Yeast cdc2+ Protein Kinase Regulates Entry into Mitosis", (1989), Nature, 342:39-45
	Krek and Nigg, "Mutations of p34cdc2 Phosphorylation Sites Induce Premature Mitotic Events in HeLa Cells: Evidence for a Double Block to p34cdc2 Kinase Activation in Vertebrates", (1991), EMBO Journal, 10(11):3331-3341

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## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS

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KH		Gavin C. Hirst et al., U.S. Serial Number 09/663,320; Filed September 15, 2000
KH		Gavin C. Hirst et al., U.S. Serial Number 09/663,780; Filed September 15, 2000

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*A. M. H. Hirst*

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